



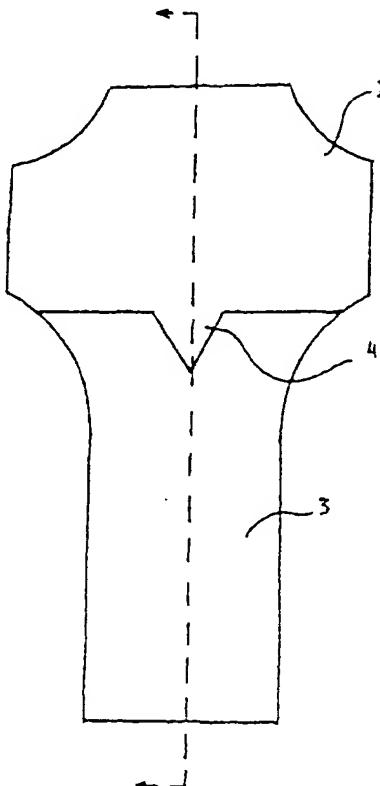
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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## (54) Title: INCONTINENCE GUARD

## (57) Abstract

The present invention concerns an incontinence guard which primarily is intended for use by males. The guard has small outer dimensions and can be used without being noticed and it is easy to exchange. The guard comprises a pad (1). The pad is smoothly rounded and has on its outer, from the body of the bearer turned side, a liquid impermeable layer (2), e.g. a plastic layer. At the lower part of the pad there is attached or folded an inner pad (3) which in its upper edge has a V-shaped cut-out.



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Incontinence guard

The present invention concerns incontinence guard which primarily is intended for males.

The primary object of incontinence guards of the kind which the invention concerns is to absorb and retain urine from uncontrolled leakage of urine. The guard shall reduce or remove discomfort due to moist and smell, and it must have a sufficient absorbing capacity to enable its use without exchanging it too often.

The incontinence guards which are known are very similar to common diapers as far as material and design is concerned, i. e. they consist of a flat absorbing material which is applied directly to the body. A guard of that kind does not fulfil the requirements mentioned above. Beyond the requirements mentioned above incontinence guards for men should be so designed that they fully or partly enclose the penis in order to avoid that leaking urine reaches outside the guard, and to avoid that urine remains between penis and scrotum where a common diaper gives no protection. One way of avoiding this problem is to design the guard as a pocket or bag into which the penis is inserted. Prior art designs of such guards are however not satisfactory for the security for active users, they can be difficult to exchange for disabled persons and they are often too large to allow a comfortable, and of those around, unnoticed use.

For small volume urine leakage there are different kinds of drop guards, which however have a very low absorbing capacity. There is a need for a guard having a capacity between that of a drop guard and up to full size diapers.

The present invention concerns an incontinence guard for males by means of which the above mentioned drawbacks are eliminated. The guard may thus be made with small outer dimensions and is thereby possible to use more unnoticed and it is easier to exchange for those sitting in wheelchairs and other persons who have not before been able to make such exchanges without help. The guard also gives great security against leakage and unwanted smell both in daytime and at night, and it can be equipped with a urine-indicator of known kind.

The incontinence guard according to the invention will below be more closely described with reference to the embodiment which is shown in the enclosed figures.

Figure 1 shows a guard according to the invention seen from the side which is turned towards the body of the user.

Figure 2 is a cross section of the guard according to figure 1.

Figure 3 shows a guard having an alternative outer shape.

The guard shown in figure 1 comprises a pad 1 onto which the guard is built. This is a pad about 400 mm long and made from a material having a very high absorbing capacity. The pad is smoothly rounded of the outer, from the body of the bearer turned side, having a liquid impermeable layer 2, e. g. a plastic layer. Onto the lower part of the pad there is attached or folded by the manufacture an inner pad 3 of the same or similar material as the pad 1. Also the inner pad 3 may have an outer liquid impermeable layer 7 which in use is turned towards the body of the bearer. The inner pad reaches from the lower end of the outer pad 1 and up to an essential

part of its length, so that the outer pad extends essentially beyond the cut-out, e. g. by one third or more of its length. The two pads may be joined together along the whole of the common outer edge, preferably in such way that liquid cannot leak out between the pads. Between the two pads an inner pocket 6 is formed.

The outer shape which is shown in figure 3 can be advantageous for some users, and in general the shape and size of the guard can be varied to be adapted to individual needs and desires.

The inner pad may also be formed as one piece with the upper pad, and the guard is then made from one piece of material which is folded along the line which forms the lower edge of the guard, which will then be straight. This embodiment has advantages from a production point of view. It must then be taken into consideration that the outer layer 7, if this extends over both parts and thereby also over the surface which is turned towards the body, must have ventilating properties while at the same time it is functioning as a liquid barrier.

The inner pad has in its upper edge a V-shaped cut-out into which the penis is positioned and brought into the pocket 6. It is also possible to put in both penis and scrotum in the cut-out and this is decided by the needs of the user. The outer pad 1 has on its outside a fastening tape or the like by means of which the guard can be attached to the underwear of the user.

The guard according to the invention gives the user full freedom of movements thanks to a design using a material with very high absorbing capacity, in a partly closed space 6 and

in connection therewith a large surface above the edge of this space. The liquid absorbing capacity of the partly closed space should be at least 200 ml and must in most cases not be more than about 1000 ml. The V-shaped cut-out at the edge of the closed space is also essential for the function of the guard and makes it independent of the physical conditions of the user, e. g. varying size of penis.

## CLAIMS

1. Incontinence guard for males including an inner and an outer pad between which there is formed a partly closed space characterised therein that the inner pad 2 has a V-shaped cut-out for the introduction of penis between the pads, and that the outer pad extends from its lower edge upwards a considerable distance past the cut-out.
2. Incontinence guard according to claim 1 characterised therein that the length of the outer pad outside the cut-out is at least half of its length below that cut-out.
3. Incontinence guard according to any of the proceeding claims characterised therein that the outer pad 1 is just twice as long as the inner pad 2 and that an essentially V-shaped cut-out 4 is present in the upper edge of the inner pad.
4. Incontinence guard according to claim 1 characterised therein that the material within the partly closed space 6 can absorb at least 200 ml of liquid.
5. All arrangements, uses and other characteristics which directly or indirectly are disclosed in the above specification and/or enclosed drawings.

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AMENDED CLAIMS

[received by the International Bureau on 16 May 1997 (16.05.97);  
original claims 1-5 replaced by new claims 1-3 (1 page)]

1. Incontinence guard for males including an inner and an outer pad between which there is formed a partly closed space characterized therein that the inner pad (2) has a V-shaped cut-out (4) for the introduction of penis between the pads and that the outer pad (1) extends from its lower edge upwards a considerable distance from the cut-out (4) so that the length of the outer pad (1) outside the cut-out (4) is one third or more of its length below the cut-out.
2. Incontinence guard according to claim 1 characterized in that the outer pad (1) is just twice as long as the inner pad (2) and that an essentially V-shaped cut-out (4) is present in the upper edge of the inner pad.
3. Incontinence guard according to any of the preceding claims characterized therein that the material within the partly closed space (6) can absorb at least 200 ml of liquid.

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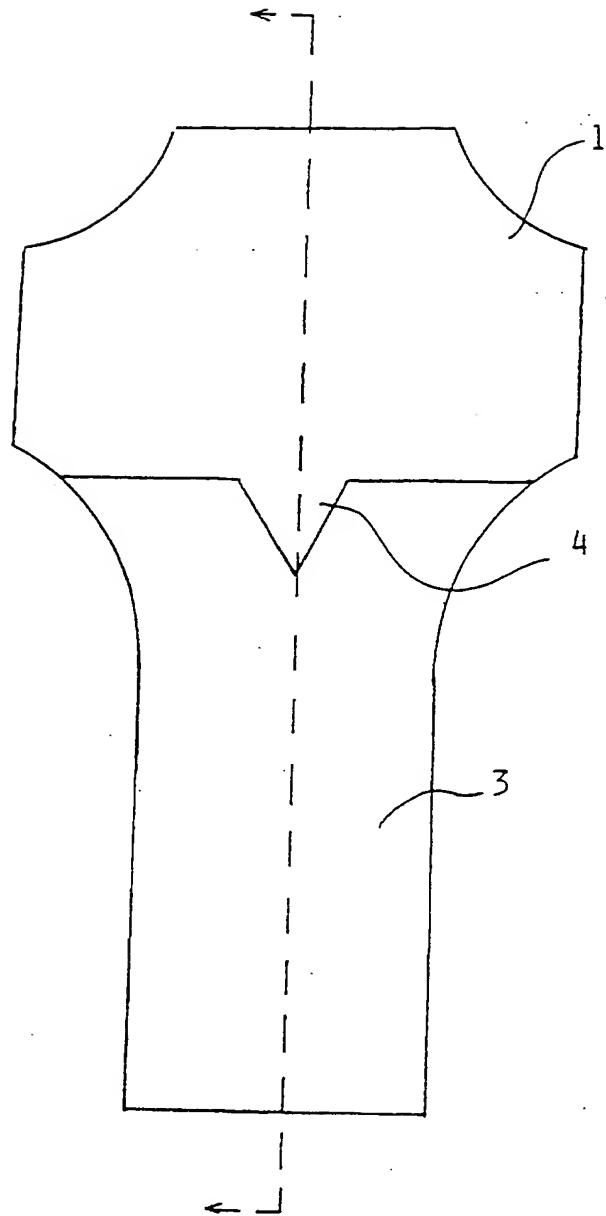
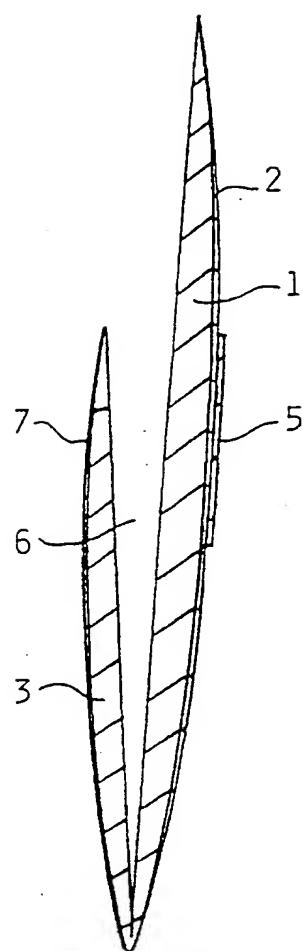


Fig 2

Fig 1

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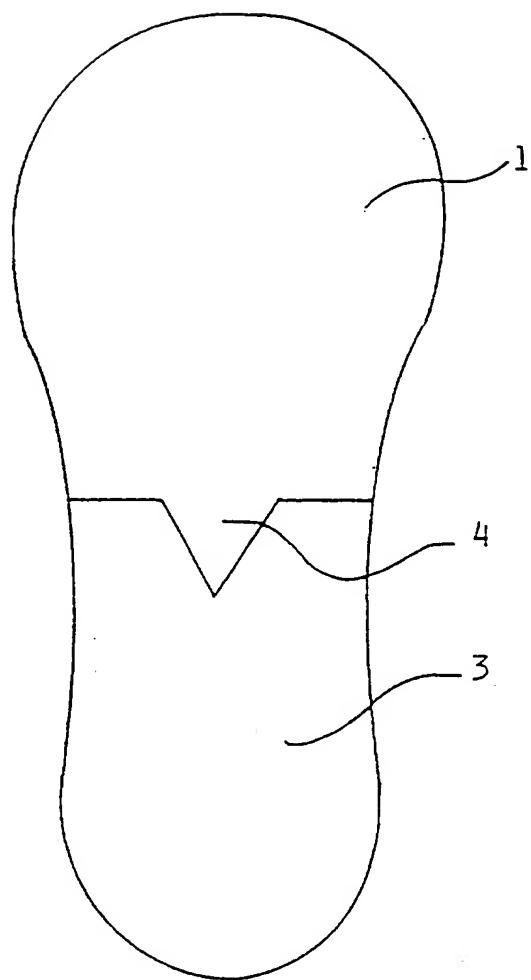


Fig 3

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 96/01713

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A61F 13/15, A61F 5/453

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

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## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 8911839 A1 (COLOPLAST A/S ET AL.), 14 December 1989 (14.12.89), figure 1, abstract  --	1-5
Y	FR 2701389 A1 (BOUSSIGNAC GEORGES), 19 August 1994 (19.08.94), figure 2, abstract  --	1-5
A	WO 9207532 A1 (SEUN YUNG CHUNG), 14 May 1992 (14.05.92), figure 1  --	1-5
A	US 4197849 A (EMMA T. BOSTICK), 15 April 1980 (15.04.80), abstract  -- -----	1-5

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 8911839 A1	14/12/89	NONE	
FR 2701389 A1	19/08/94	NONE	
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US 4197849 A	15/04/80	NONE	